



14538A-45-1.ST25.txt
SEQUENCE LISTING

<110> ROBERTS, James A.
KELLY, Beth L.

<120> METHODS FOR INCREASING PLANT CELL PROLIFERATION BY FUNCTIONALLY INHIBITING
A PLANT CYCLIN INHIBITOR GENE

<130> 14538A-45-1

<140> 09/980,758

<141> 2001-11-13

<150> PCT/US00/13379

<151> 2000-05-15

<150> US 60/134,373

<151> 1999-05-14

<160> 22

<170> PatentIn version 3.1

<210> 1

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<213> Arabidopsis thaliana

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tctacatcta ctattgtctc tacatgttct tcttcatcaa cgactttgtc ttctcctcta 180
gacacaatct actctgttcc ctctccatcc ccagcagcgg tgctgacgtc accaggcgg 240
tgttgtaccc cgaaagccaa gaagtctagg ataccggaga tgctgacgtg tccaccggcg 300
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35 40 45Cys Ser Ser Ser Ser Thr Thr Leu Ser Ser Pro Leu Asp Thr Ile Tyr
50 55 60Ser Val Pro Ser Pro Ser Pro Ala Ala Val Leu Thr Ser Pro Gly Gly
65 70 75 80Cys Cys Thr Pro Lys Ala Lys Lys Ser Arg Ile Pro Glu Met Leu Thr
85 90 95Cys Pro Pro Ala Pro Lys Lys Gln Arg Val Ser Lys Asn Cys Val Leu
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115 120 125Phe Val Asn Ala His Asp Arg
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ccaaaacctc aaaaacaaag aaggacgaag gtgatgacga cgaagatgac ctccgctgca 180

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cgtgcaagag gaagctttta gtgtcgactt gtgagataat catgaatcgg gaagagattg	360
accgtttctt ctctccgtc tacaatgaga cgtcgactac ggctaaacgg cggagaagtt	420
acccttattg ttctcgaaga tgaggcttaa ttcaatattt acattttttt acagttttac	480
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<223> Xaa = any amino acid

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 20 25 30

Phe Pro Thr Pro Ile Lys Ile Arg Ser Lys Thr Ser Lys Thr Lys Lys
 35 40 45

Asp Glu Gly Asp Asp Asp Glu Asp Asp Leu Arg Cys Ser Thr Pro Thr
 50 55 60

Ser Gln Glu His Lys Ile Pro Ala Val Val Asp Ser Pro Pro Pro Pro
 65 70 75 80

Pro Arg Lys Pro Arg Pro Pro Pro Ser Ala Pro Ser Ala Thr Ala Ala
 85 90 95

Leu Met Ile Arg Ser Cys Lys Arg Lys Leu Leu Val Ser Thr Cys Glu
 100 105 110

Ile Ile Met Asn Arg Glu Glu Ile Asp Arg Phe Phe Ser Ser Val Tyr
 115 120 125

Asn Glu Thr Ser Thr Thr Ala Lys Arg Arg Arg Ser Tyr Pro Tyr Cys
 130 135 140

Ser Arg Arg Xaa Gly Leu Ile Gln Tyr Leu His Phe Phe Thr Val Leu
 145 150 155 160

Leu Glu Ile Leu Xaa Asn Xaa Leu Ser Val Gly Val Arg Phe Xaa Ile
 165 170 175

Phe Leu Ile Glx Leu Xaa Ile Trp Met Asp Asn Phe Leu Gln Pro Arg
 180 185 190

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Ile Leu Ile Ser His Gly Gly Val Asp Val Val Asn Xaa Val Ile Asn
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Glu Gly Lys Ser Arg
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 agtacttatt atttctcttc tgtaataatc ttgctttga ttttctttt aacaaaatcc 720
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 20 25 30
 Leu Ser Pro Cys Val Gln Ala Thr Asn Arg Gly Gly Ile Val Ala Arg
 35 40 45
 Asn Ser Ala Gly Ala Ser Glu Thr Ser Val Val Ile Val Arg Arg Arg
 50 55 60
 Asp Ser Pro Pro Val Glu Glu Gln Cys Gln Ile Glu Glu Glu Asp Ser
 65 70 75 80
 Ser Val Ser Cys Cys Ser Thr Ser Glu Glu Lys Ser Lys Arg Arg Ile
 85 90 95
 Glu Phe Val Asp Leu Glu Glu Asn Asn Gly Asp Asp Arg Glu Thr Glu
 100 105 110
 Thr Ser Trp Ile Tyr Asp Asp Leu Asn Lys Ser Glu Glu Ser Met Asn
 115 120 125
 Met Asp Ser Ser Ser Val Ala Val Glu Asp Val Glu Ser Arg Arg Arg
 130 135 140
 Leu Arg Lys Ser Leu His Glu Thr Val Lys Glu Ala Glu Leu Glu Asp
 145 150 155 160
 Phe Phe Gln Val Ala Glu Lys Asp Leu Arg Asn Lys Leu Leu Glu Cys
 165 170 175
 Ser Met Lys Tyr Asn Phe Asp Phe Glu Lys Asp Glu Pro Leu Gly Gly
 180 185 190
 Gly Arg Tyr Glu Trp Val Lys Leu Asn Pro Xaa
 195 200

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<212> DNA

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ctgattcatc accggactct catgacgtca tcgtcttcgc ggtttcatct tcttccgttg 180
cttcgtcggc ggcttttagcg tctgatgaat gttccgttac catcggtgga gaagaaagtg 240
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acagttcgtc gtttggtgta gatctggagg atcatcaa atcgaaaccgaa accgaaacct 360
caacattcat caccagcaat ttcagaaaag agacgagtcc agtgagtgag gggttgggag 420
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agactccaac ggcggcggag attgaggatt tggtctcgga gctagagagt ccagacgata 540
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20 25 30

Lys Lys Thr Lys Leu Asn Asp Ser Ser Asp Ser Ser Pro Asp Ser His
35 40 45

Asp Val Ile Val Phe Ala Val Ser Ser Ser Ser Val Ala Ser Ser Ala
50 55 60

Ala Leu Ala Ser Asp Glu Cys Ser Val Thr Ile Gly Gly Glu Glu Ser
65 70 75 80

Asp Gln Ser Ser Ser Ile Ser Ser Gly Cys Phe Thr Ser Glu Ser Lys
85 90 95

Glu Ile Ala Lys Asn Ser Ser Ser Phe Gly Val Asp Leu Glu Asp His
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100

105

110

Gln Ile Glu Thr Glu Thr Glu Thr Ser Thr Phe Ile Thr Ser Asn Phe
 115 120 125
 Arg Lys Glu Thr Ser Pro Val Ser Glu Gly Leu Gly Glu Thr Thr Thr
 130 135 140
 Glu Met Glu Ser Ser Ser Ala Thr Lys Arg Lys Gln Pro Gly Val Arg
 145 150 155 160
 Lys Thr Pro Thr Ala Ala Glu Ile Glu Asp Leu Phe Ser Glu Leu Glu
 165 170 175
 Ser Pro Asp Asp Lys Lys Lys Gln Phe Ile Glu Lys Tyr Asn Phe Asp
 180 185 190
 Ile Val Asn Asp Glu Pro Leu Glu Gly Arg Tyr Lys Trp Asp Arg Leu
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Xaa

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<223> Xaa = Leu, Arg, Asp or any other amino acid residue

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<223> Xaa = Phe, Leu or another hydrophobic amino acid residue

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<223> Xaa = Glu or Lys

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<223> Xaa = Lys or Arg

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<223> Xaa = Asn or Glu

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Tyr Xaa Trp Xaa Xaa Leu Xaa
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<210> 21

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